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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,228	04/04/2005	Eberhard Rau	3243	1262

7590 01/09/2006

Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743

EXAMINER

PRESTON, ERIK D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/530,228

Applicant(s)

RAU ET AL.

Examiner

Erik D. Preston

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/04/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: On page 7, lines 11 & 13 refer to "Fig. X3", but there is no Figure X3 in the submitted drawings.

Appropriate correction is required.

Claim Objections

Claim 9 is objected to because of the following informalities: In the 4th line of the claim, the phrase "...the stamping burrs ..." lacks proper antecedent basis and, for examination purposes, will be interpreted as saying "...the stamping burrs ..."

Appropriate correction is required.

Claim 11 is objected to because of the following informalities: In the 2nd line of the claim, the phrase "...the outwardly oriented stamping burrs..." lacks proper antecedent basis and, for examination purposes, will be interpreted as saying "...the outwardly oriented stamping burrs ..." Appropriate correction is required.

Claim 15 is objected to because of the following informalities: In the 3rd line of the claim, the phrase "...the tooth heads of the half teeth..." lacks proper antecedent basis and, for examination purposes, will be interpreted as saying "...the tooth heads of the half teeth ..." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 6, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 6, the phrase "for example" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 18 & 19, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (US 6346758).

With respect to claim 18, Nakamura teaches a stator for a motor vehicle generator (Abstract) that has a yoke that is comprised of rolled strip-shaped laminations (as seen in Fig. 1) and has axial end surfaces, characterized in that the stator yoke is plastically deformed in the axial direction on its end surfaces (as seen in Fig. 4).

With respect to claim 19, Nakamura teaches a stator for a motor vehicle generator (Abstract) that has a yoke that is comprised of rolled strip-shaped laminations

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(as seen in Fig. 1) and has axial end surfaces, characterized in that the stator yoke has an axial length at its inner diameter that is greater than at its outer diameter (as seen in Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-13 & 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (US 2003/0020357) in view of Nakamura (US 6346758).

With respect to claim 1, Harada teaches a method for manufacturing a stator core for an electric machine, in which strip-shaped laminations are first stacked to form an essentially block-shaped lamination packet (Fig. 16, #45) that is then shaped into an annular form by roller bending in one of the subsequent steps (as seen in Fig. 15), wherein the stator core has an axial direction that corresponds to a cylinder axis, the annular form having axial end surfaces, but it does not teach that in another of the subsequent steps, the annular lamination packet is plastically deformed in the axial direction. However, Nakamura teaches an annular lamination packet that is plastically deformed in the axial direction as seen in Fig. 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lamination packet of Harada in view of the lamination packet as taught by Nakamura because it provides an

improved arrangement of a rotary electric machine which is resistant to deformation force (Nakamura, Col. 1, Lines 31-33).

With respect to claim 2, Harada in view of Nakamura teaches the method of claim 1, and Nakamura teaches that the axial clamping surfaces are formed onto the two axial ends of the annular lamination packet as a result of the plastic deformation of the end surfaces (as seen in Figs. 5 & 6).

With respect to claim 3, Harada in view of Nakamura teaches the method of claim 1, and Nakamura teaches that at the same time, the outer circumference of the annular lamination packet is pressed in the radial direction and thus plastically deformed (as seen in Figs. 5 & 6).

With respect to claim 5, Harada in view of Nakamura teaches the method of claim 1, and Nakamura teaches that the plastic deformation simultaneously forms an insertion chamfer (Fig. 5, #25).

With respect to claim 6, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that the laminations have a thickness of 0.5 mm (Paragraph 113).

With respect to claim 7, Harada in view of Nakamura teaches the method of claim 1, but it does not specifically teach that a number of n laminations of a lamination packet are positioned in the packet in that same sequence in which they were produced in a stamping die. However, in a separate embodiment (embodiment 1) Harada teaches a lamination stack that if formed by positioning laminations in the stack in the order they were produced. It would have been obvious to one of ordinary skill in the art

at the time of the invention to position a number of n laminations of the lamination packet as taught in Harada's 7th embodiment in the packet in that same sequence in which they were produced in a stamping die because Harada does not teach the laminations being stacked in any special order according their order of production, and also because it would be easier to construct the lamination packets from laminations in the order they are produced rather than shuffling the laminations up for some unspecified reason.

With respect to claim 8, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that in before the laminations are stamped out from a lamination sheet blank, its material thickness is determined by means of a measuring device (Paragraph 113) and the desired number of laminations in the essentially block-shaped lamination packet is determined based on a toleranced desired width of the essentially block-shaped lamination packet (which it inherently is).

With respect to claim 9, Harada in view of Nakamura teaches the method of claim 7 and Harada teaches that the lamination packet is divided into at least two partial lamination packets (Fig. 16, 45A & 45B) and these are joined to form a lamination packet so that at an internal junction point, stamping burrs of adjacent laminations are oriented away from each other (such as is seen in Fig. 3, the burrs are oriented 180° out of line with each other).

With respect to claim 10, Harada in view of Nakamura teaches the method of claim 7, Nakamura teaches that the desired number of laminations are stacked to produce a gap-free lamination packet, precisely aligned, pressed against one another

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through an exertion of force, and Harada teaches that the laminations are attached to one another by means of an attaching technique (Fig. 16, #16), but it does not specifically teach that the laminations are cleaned. However, cleaning laminations was well known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to clean the laminations of Harada to remove any debris or chemicals that were transferred to the laminations during pressing.

With respect to claim 11, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that outwardly oriented stamping burrs of the laminations are removed.

With respect to claim 12, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that the roller bearing occurs while the lamination packet is axially prestressed (by laser welding and electrically insulating resin, Paragraph 113) at the same time.

With respect to claim 13, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that the essentially block-shaped lamination packet has two ends, which are attached to each other after the lamination packet undergoes roller bending while being axially prestressed.

With respect to claim 15, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that half tooth welding seams are provided on tooth heads of half teeth and/or the end surfaces of half teeth (Fig. 15, #16).

With respect to claim 16, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that welding seams (Fig. 16, #16) are provided, which extend in the axial direction from an axial end surface, but it does not teach that said welding seams only connect up to twenty laminations to one another. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the stator core of Harada from only twenty laminations since it has been held that a difference between the relative dimensions of a claimed device and a prior art device is not considered to be patentably distinct (In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

With respect to claim 17, Harada in view of Nakamura teaches the method of claim 1, and Harada teaches that before the roller bending, a stator winding is inserted into the essentially block-shaped lamination packet (Paragraph 118).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (US 2003/0020357) in view of Nakamura (US 6346758) further in view of Chochoy et al. (US 6774511). Harada in view of Nakamura teaches the method of claim 1, and Nakamura teaches that the plastic deformation of the outer circumference of the lamination packet produces a radial depression, but it does not specifically teach that said radial depression is used for a housing fitting. However, Chochoy teaches that the upper and lower portions of a stator core can be used as fittings for a housing (Fig. 1, #12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the stator core of Harada in view of Nakamura in view of the housing

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as taught by Chochoy because it provides a means for carrying two main internal members of an alternator (Chochoy, Col. 7, Lines 1-5).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (US 2003/0020357) in view of Fritzsche (US 4940913). Harada teaches a method for manufacturing a stator core for an electric machine, in which strip-shaped laminations are first stacked to form an essentially block-shaped lamination packet (Fig. 16, #45) that is then shaped into an annular form by roller bending in one of the subsequent steps (as seen in Fig. 15), wherein the stator core has an axial direction that corresponds to a cylinder axis, the annular form having axial end surfaces, but it does not teach that in another of the subsequent steps, the annular lamination packet is plastically deformed in the axial direction, wherein the axial shaping step reduces the axial length of the stator packet by between 1% and 10% at the outer circumference. However, Fritzsche teaches an annular lamination packet that is plastically deformed in the axial direction (as seen in Fig. 19), wherein the axial shaping step reduces the axial length of the stator packet by between 1% and 10% at the outer circumference. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the stator core of Harada in view of the plastic deformation as taught by Fritzsche because it provides a means for achieving a greater core density (Fritzsche, Col. 3, Lines 14-50).


Conclusion

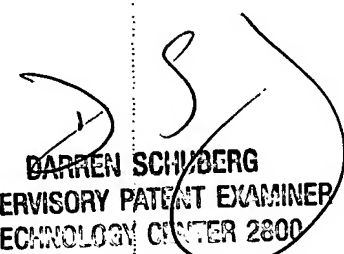
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US RE26788, US 558539, US 2845555, US 3831268, US 5992003, US 6262511, US 6337529 & US 6819024

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


12/15/2005


DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
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